

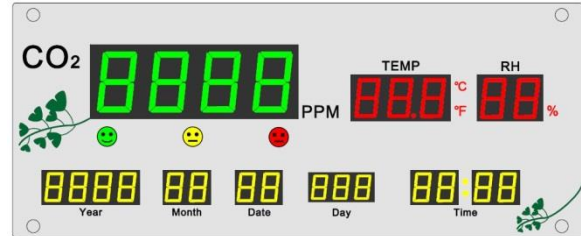
### General Information of CO2 Gas

Carbon dioxide, CO2 is a by-product of combustion processes and the natural metabolism of living organisms. Human beings inhale oxygen and exhale CO2. When CO2 is exhaled, it will quickly be mixed with the surrounding air.

Besides micro-dust and chemical substances, one of the main parameters in measuring indoor air quality (IAQ) is to measure CO2 concentration in the air.

If ventilation is good, CO2 concentration will be reduced to harmless levels. However, inadequate ventilation leads to poor air quality and build up of CO2 levels that can cause occupants discomfort and health problems, such as increasing breathing rate, drowsiness, headache and feeling nausea.

In areas where combustion appliances, such as petroleum or gas heaters are used, CO2 build up could reach dangerous level and may threaten the safety of the occupants.



### SenseLife-Wim-T

#### Multi-function Wall-mount air quality Monitor

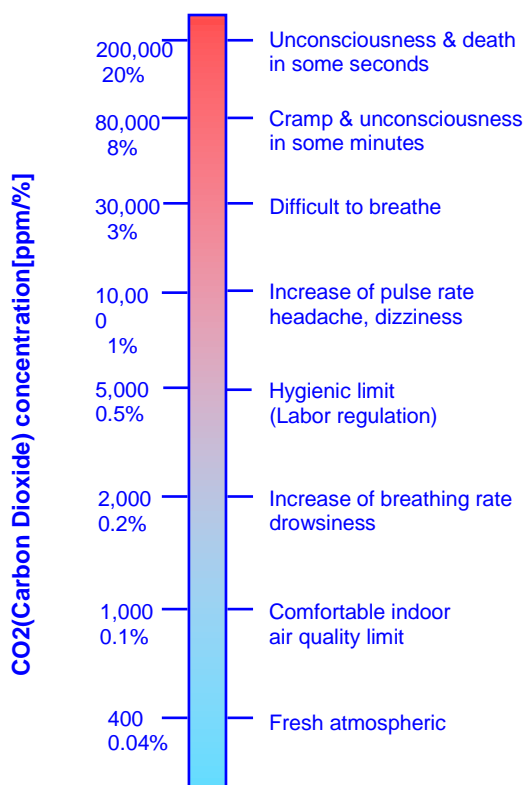
SenseLife-Wim displays three most crucial parameters of IAQ; CO2 level. Humidity and temperature. It also provides date, day and time.

It uses good quality sensors; such as the SenseAir's patented state-of-the art infrared (NDIR) waveguide technology CO2 sensor, temperature and humidity sensors which are from Sensirion CMOS technology offer reliable measurements.

SenseLife-Wim-T has three relay contacts that can be used to control the start and stop of HVAC equipment. It can also pass the measurement data to any data integrator or building control systems via the RS485 digital interface.

SenseLife-Wim-T not only fulfil the control requirement but also ensures adequate indoor air quality (IAQ) requirement, it is an optimum choice for installation in intelligent building.

### How does CO2 affect the human body?



### ASHRAE Standard

ASHRAE : American Society of Heating, Refrigeration and Air-conditioning Engineers

### CO2/Temp/RH Sensor/Transmitter

1. Relay OUT1 : CO2 @ 1200ppm
2. Relay OUT2 : Temp @ 28°C
3. Relay OUT3 : RH @ 70%
4. RS485 (Modbus RTU)
5. Option : ZigBee Wireless communication (Relay set-points can be changed with software)

Wall-mount

# Indoor Air Quality Monitor

## ※ Temperature

Operating Temp range : 0°C ~ 50°C  
Storage temp range : -30°C ~ 70°C  
Accuracy : ±0.3°C

## ※ Humidity

Display : Relative Humidity(%)  
Measurement range : 0-100%RH  
Accuracy : ±3% of reading

## ※ CO2 sensor Specification

Sensing method : NDIR(Non Dispersive infra Red)  
Sampling method : Diffusion  
Measurement range : 0-9999ppm  
Display : Digital display (4 digits)  
Accuracy : ±40ppm, ±3% of reading  
Warming up : Less than 30 seconds

### Note:

- 1.The SO2 enriched environments are excluded.
- 2.In normal IAQ applications (@ NTP). Accuracy is defined after minimum 3 weeks of continuous operation.
- 3.Accuracy is specified at room temperature +25°C and at normal pressure 101.3 kPa. Specification is referenced to certified calibration mixtures. Uncertainty of calibration gas mixtures (+-1% currently) is to be added to the specified accuracy for absolute measurements.

## ※ Relay contact setting

- CO2 ; pre-set @ 1200ppm (with hysteresis 100ppm)
- Temp ; pre-set @ 28°C ( with hysteresis 1°C)
- Humidity ; pre-set @ 70% ( with hysteresis 5%)

## ※ CO2 indicative Lights

Less than 800 ppm - Good 😊  
800 ~ 1,200ppm - Normal 😐  
More than 1,200ppm - Poor 😞

## ※ Main material

PMMA panel (4mm), SPCC casing (1mm)

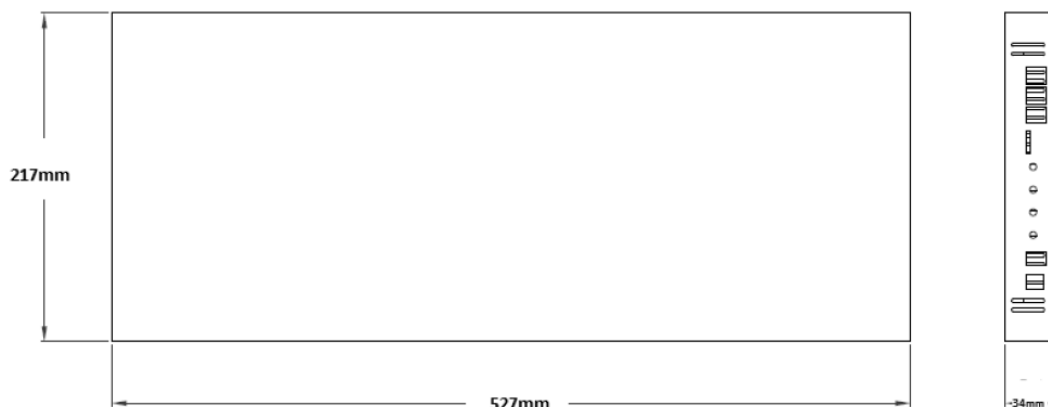
※ Dimensions: 527 x 217 x 32 mm Weight :2700g

## ※ Display:

CO2, Temperature, Humidity, Year, Month, Date, Day & Time,

※ Memory capacity –60,000 values  
(available with SD card )

※ Those pre-set parameter can be changed with software:  
(Relay Contact/CO2 indicative lights/Record function)



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